

Diabetes

Dateline

National Diabetes Information Clearinghouse

Winter 2009

Metformin May Protect against Death from Type 2 Diabetes-related Cardiovascular Disease

Metformin, a medication to control type 2 diabetes, is moderately protective against cardiovascular disease (CVD) mortality, according to a meta-analysis funded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Researchers at the Johns Hopkins Evidence-based Practice Center analyzed data from 40 reports on controlled clinical trials of oral diabetes medications. Drug classes evaluated included thiazolidinediones, second-generation sulfonylureas, meglitinides, and biguanides such as metformin. All are widely used to lower levels of hemoglobin A1C (A1C), a 3-month average of blood glucose, also called blood sugar.

Maintaining an A1C of less than 7 percent is a broadly accepted therapeutic goal, based on evidence that it reduces eye, nerve, and kidney complications of diabetes. Evidence is scant, however, on the effects of oral type 2 diabetes medications on major CVD events such as heart attack or stroke.

“It is unclear how these agents compare with respect to long-term cardiovascular risk,” Elizabeth Selvin, Ph.D., M.P.H., assistant professor of epidemiology, the Johns Hopkins University, and colleagues write in their report, which appears in the October 31, 2008, issue of *Archives of Internal Medicine*. As opposed to looking at effects on CVD risk factors such as changes in A1C, serum blood lipids, and blood pressure, the authors examined hard clinical outcomes, such as heart attack, stroke, and death.



Searching peer-reviewed literature published from 1966 to 2005, the researchers limited their meta-analysis to oral medications that were available January 2006 and that reported all-cause mortality and cardiovascular morbidity and

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NIDDK
NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
AND KIDNEY DISEASES

Ten New Investigators Earn Type 1 Diabetes Pathfinder Awards



“By providing multiyear support to new researchers with highly innovative projects, we hope to attract and retain high-caliber investigators to research careers in type 1 diabetes.”

Judith Fradkin, M.D.
Director, Division of
Diabetes, Endocrinology,
and Metabolic Diseases,
NIDDK

Ten scientists have won Type 1 Diabetes Pathfinder Awards for highly innovative research studies that offer exceptional promise for improving the understanding, prevention, and treatment of type 1 diabetes and its complications.

The recipients, all new researchers who have never been principal investigators on a National Institutes of Health (NIH)-funded grant, were awarded about \$1.5 million each to pursue their work over 5 years. Their studies span a wide range of topics, from the development of a vaccine to prevent autoimmune diabetes to methods that speed wound healing and prevent recurrent injury.

About 5 to 10 percent of the nearly 24 million people with diabetes have type 1, formerly known as juvenile onset diabetes or insulin-dependent diabetes. In this form of diabetes, immune cells attack and destroy pancreatic beta cells, which produce insulin—the critical hormone needed for survival.

The goal of the Pathfinder Award is to support creative new investigators who propose innovative research projects that have the potential for unusually high impact on type 1 diabetes. The awards are funded by a special program for type 1 diabetes research, which provides \$150 million annually through fiscal year 2011

to supplement funds for type 1 diabetes research made available through the regular NIH appropriations process. The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) administers the program on behalf of the Secretary of the Department of Health and Human Services, in collaboration with NIH Institutes and Centers and the Centers for Disease Control and Prevention.

“Many young investigators have innovative research ideas, but they don’t have the preliminary data required to compete in the traditional NIH peer review system,” said Judith Fradkin, M.D., director of the NIDDK’s Division of Diabetes, Endocrinology, and Metabolic Diseases. “This award overcomes that impediment. By providing multiyear support to new researchers with highly innovative projects, we hope to attract and retain high-caliber investigators to research careers in type 1 diabetes.”

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Diabetes Dateline

Diabetes Dateline, an email newsletter, is sent to subscribers by the National Diabetes Information Clearinghouse (NDIC). The newsletter features news about diabetes, special events, patient and professional meetings, and new publications available from the NDIC and other organizations.

If you would like to subscribe, go to <http://catalog.niddk.nih.gov/newsletter.cfm>. You can read or download a PDF version of the newsletter at www.diabetes.niddk.nih.gov/about/newsletter.htm.



Executive Editor: Judith Fradkin, M.D.

Dr. Fradkin is the director of the Division of Diabetes, Endocrinology, and Metabolic Diseases for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health in Bethesda, MD. Dr. Fradkin earned her M.D. from the University of California at San Francisco and completed an internship and residency at Harvard’s Beth Israel Hospital in Boston. Dr. Fradkin came to the NIDDK as a clinical associate in 1979 after an endocrinology fellowship at Yale University. She has overseen NIDDK-supported research in various roles, directing the Institute’s research programs in diabetes, cystic fibrosis, endocrinology, and metabolic diseases. A practicing endocrinologist, Dr. Fradkin continues to treat patients at the National Naval Medical Center in Bethesda, where she worked as a staff endocrinologist in the early 1980s.



PATHFINDER AWARDS, from page 2

The awardees were named by NIDDK Director Griffin P. Rodgers, M.D., M.A.C.P., who based the selections on outside expert evaluations, the recommendations of the NIDDK National Advisory Council, and programmatic considerations.

For more information about the award and recipients' projects, go to www2.niddk.nih.gov/Funding/FundingOpportunities/RFA/RFA_T1D_Pathfinder_Award_Recipient.htm.

For information about type 1 diabetes research, clinical trials, reports, and meetings, go to www.t1diabetes.nih.gov. ■

The Type 1 Diabetes Pathfinder Award recipients for fiscal year 2008 are

Brian David Brown, Ph.D.

Mount Sinai School of Medicine
Novel Strategy to Induce Islet Protective
Regulatory T Cells and Prevent Diabetes

Deyu Fang, Ph.D.

University of Missouri School of Medicine
A Novel Target for Type 1 Diabetes

John M. Hollander, Ph.D.

West Virginia University School of Medicine
Mechanisms of Diabetic Cardiomyopathy:
Mitochondria Subpopulations

Kenneth W. Liechty, M.D.

Children's Hospital of Philadelphia
Extracellular Matrix Structure and Function in
Diabetic Wound Healing

Xunrong Luo, M.D., Ph.D.

Northwestern University
ECDI Coupled Cells for Tolerance in Allogeneic
Islet Cell Transplantation for T1D

Edward E. Mitre, M.D.

Uniformed Services University of the Health Services
Protection Against Type 1 Diabetes by Parasitic
Helminths

Cherie L. Stabler, Ph.D.

University of Miami
Functionalized, Nanoscale Coatings for Islet
Encapsulation

Ben Z. Stanger, M.D., Ph.D.

University of Pennsylvania
An In Vivo Approach to Cell-Based Therapy for
Type 1 Diabetes

Bridget K. Wagner, Ph.D.

Massachusetts Institute of Technology
Small-Molecule Approaches to Restore Glycemic
Control in Type 1 Diabetes

Xingxing Zang, Ph.D.

Albert Einstein College of Medicine of Yeshiva
University
New T Cell Coinhibitory Pathway and
Type 1 Diabetes

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mortality. They excluded studies that examined combination therapies of more than two oral diabetes medications, that lasted less than 3 months, or that had fewer than 40 participants.

Based on pooled data from six clinical trials representing more than 11,000 individuals, metformin compared with any other oral diabetes medication or placebo was the only agent that significantly reduced CVD mortality. Metformin also decreased all-cause mortality and CVD morbidity, but the data were not significant.

The authors urge more long-term studies to better ascertain the risks and benefits of the growing number of available oral medications for type 2 diabetes. They also urge better reporting of CVD events in short-term studies.

To read the full-text article, go to <http://archinte.ama-assn.org/cgi/content/full/168/19/2070>.

For information about the Johns Hopkins Evidence-based Practice Center, visit www.jhsph.edu/epc/index.html. ■

"It is unclear how these agents compare with respect to long-term cardiovascular risk."

Elizabeth Selvin, Ph.D., M.P.H.

Assistant Professor of
Epidemiology, Johns
Hopkins University

NIDDK-funded DETS Program Launches New Curriculum

Schools across the United States now have free access to an innovative set of teaching tools designed to increase the understanding of science, health, and type 2 diabetes among American Indian and Alaska Native students in kindergarten through the 12th grade. The comprehensive new curriculum, called “Health is Life in Balance,” was launched last November at the Smithsonian’s National Museum of the American Indian in Washington, D.C.

“We hope that this innovative, well-tested curriculum will reduce the rapidly rising incidence of type 2 diabetes in Native Americans by teaching young people about diabetes prevention.”

Griffin P. Rodgers, M.D., M.A.C.P.
Director, NIDDK

The curriculum, a product of the Diabetes-based Science Education in Tribal Schools (DETS) program, integrates science and Native American traditions to educate students about science, type 2 diabetes and its risk factors, and the importance of nutrition and physical activity in maintaining health and balance in life.

Applying an inquiry-based approach to learning, the curriculum builds research skills in observation, measurement, prediction, experimentation, and communication. The project was developed with funding from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health; the Indian Health Service (IHS); and the Centers for Disease Control and Prevention.

The rate of diagnosed diabetes in American Indians and Alaska Natives is two to three times higher than that of non-Hispanic whites. Nearly 17 percent of the total adult population served by the IHS has diagnosed diabetes. After adjusting for population age differences, diabetes rates vary from 6 percent among Alaska Native adults to 29 percent among American Indian adults in southern Arizona. Once seen only in adults, type 2 diabetes is increasingly being diagnosed in youth, especially in American Indian and other minority populations.

“Many people don’t know that type 2 diabetes can often be prevented by losing a modest amount of weight through diet and regular



physical activity,” said NIDDK Director Griffin P. Rodgers, M.D., M.A.C.P. “We hope that this innovative, well-tested curriculum will reduce the rapidly rising incidence of type 2 diabetes in Native Americans by teaching young people about diabetes prevention.”

Curriculum materials were designed and extensively tested by staff from eight tribal colleges and universities who worked with 63 teachers and 1,500 students in schools across 14 states.

“This curriculum is an important step in educating American Indian and Alaska Native youth about preventing type 2 diabetes,” said Alvin Windy Boy, former chair of the Tribal Leaders Diabetes Committee, a group of elected tribal officials who advise the IHS on diabetes topics. “The materials are understandable, tailored for students at different grade levels, and make the concepts relevant to our lives and families.”

The curriculum units provide accurate, culturally tailored materials and lesson plans for more than 1,000 tribal schools on reservations and in public schools that have a sizable number of American Indian students.

“This curriculum can change perceptions and attitudes about diabetes and empower young people to adopt healthier lifestyles,” said Kelly Acton, M.D., M.P.H, IHS director of the

DETS PROGRAM,

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Zerhouni Ends Tenure as NIH Director

Deputy Director Kington Steps in as Acting Director

Elias A. Zerhouni, M.D., a physician-scientist and world-renowned leader in radiology research, ended his tenure as director of the National Institutes of Health (NIH). From May 2002 through October 2008, Zerhouni led the agency through a challenging period that required innovative solutions to transform basic and clinical research into tangible benefits for patients and their families.

"I have had the privilege of leading one of the greatest institutions in the world for six-and-a-half years."

Elias A. Zerhouni, M.D.

Zerhouni plans to pursue writing projects and explore other professional opportunities.

"I have had the privilege of leading one of the greatest institutions in the world for six-and-a-half years," Zerhouni said. "NIH's strength comes from the extraordinary commitment and excellence of its people in serving a noble mission. It also comes from the nation's scientific community, whose discoveries alleviate the suffering of patients throughout the world."

NIH Roadmap

The hallmark of Zerhouni's tenure is the NIH Roadmap for Medical Research, launched in 2003 after extensive consultations with the scientific community. The NIH Roadmap brought together the NIH's 27 Institutes and Centers to fund compelling research initiatives that could have a major impact on science but that no single Institute could tackle alone.

Reaching out to the Public

Under Zerhouni's leadership, the NIH reached out to the public in an unprecedented way with the communication of science-based health

information and scientific results. He led efforts to make the incomparable resources of the NIH and its grantees accessible to the public. Key to these efforts are the health education programs across the agency, including the development of materials for people who have literacy, language, or access barriers.



The NIH is part of the U.S. Department of Health and Human Services and is the nation's premiere biomedical research agency. The agency has more than 18,000 employees and a fiscal year 2008 budget of \$29.5 billion. It supports more than 325,000 research personnel at more than 3,100 institutions throughout the United States and around the world.

Raynard S. Kington, M.D., Ph.D., NIH deputy director under Zerhouni, will serve as acting director until a permanent director is appointed by President Obama. ■

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Division of Diabetes Treatment and Prevention, which will oversee distribution to schools.

The IHS, the primary source of health care services to American Indians and Alaska Natives, provides comprehensive health services for about 1.9 million of the nation's estimated 3.3 million American Indians and Alaska Natives.

To order free printed copies or CDs of the "Health is Life in Balance" curriculum, visit the IHS's online catalog site at www.ihs.gov/MedicalPrograms/Diabetes/RESOURCES/Catalog/rde/index.cfm or call 505-248-4182.

For information about diabetes, visit the NIDDK's website at www.diabetes.niddk.nih.gov. ■

National Children's Study Begins Recruiting Volunteers

Recruitment for the pilot testing phase of the National Children's Study began in January 2009 at the University of North Carolina in Chapel Hill, NC, and the Mount Sinai School of Medicine in Queens, NY—two of seven vanguard study centers. When fully operational, the study will comprise about 40 study centers, recruiting volunteers from 105 study locations throughout the United States.



"The National Children's Study will encompass a nationally representative sample, designed to be a composite of the U.S. population."

Duane Alexander, M.D.
Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development

The National Children's Study will follow a representative national sample of 100,000 children from before birth to age 21 to investigate factors influencing the development of such conditions as autism, cerebral palsy, learning disabilities, birth defects, asthma, obesity, and diabetes.

"The principal benefit of a large-scale, long-term study like the National Children's Study is that it will uncover important health information at virtually every phase of life," said Duane Alexander, M.D., director of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), one of a consortium of federal agencies implementing the study. Also involved are the National Institute of Environmental Health Sciences, the Centers for Disease Control and Prevention, and the U.S. Environmental Protection Agency.

The study centers will recruit participants; collect genetic, biological, and environmental samples; and compile statistical information for study analyses on the relationships between health, genetics, and the environment. The centers consist of universities, hospitals, health departments, and private companies or represent collaborations between these kinds of organizations.

All-encompassing

"The National Children's Study will encompass a nationally representative sample, designed to be a composite of the U.S. population," said Alexander. "It will include children throughout

the United States, from rural, urban, and suburban areas, from all income and educational levels, and from all racial groups."

Five more vanguard study centers are scheduled to begin recruitment for additional pilot testing in April 2009. If congressional funding is received as anticipated, the remaining study centers will begin the first wave of recruitment in the summer of 2010.

Although the study can be expected to provide information throughout its duration, information about early life disorders and conditions is expected within the next few years. Because the study will enroll pregnant women and, in some cases, women who are not yet pregnant, study scientists hope to identify a range of early life factors that influence later development.

"With more than 100,000 participants, we believe the National Children's Study will be the largest study of pregnant women ever conducted in the United States," said National Children's Study Director Peter Scheidt, M.D., M.P.H. "We expect the study to yield information on a variety of pregnancy- and birth-associated conditions."

Additional information about the National Children's Study is available from www.nationalchildrensstudy.gov. For a chart of the funded study centers and their corresponding locations, go to www.nichd.nih.gov/centers2008. ■

NIDDK Grantee Wins National Medal of Science

Bert O'Malley, M.D., a long-term grantee of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD), was awarded a National Medal of Science for his outstanding contributions to knowledge in the biological sciences.



"O'Malley's prodigious career is a tribute to the importance of basic research."

Griffin P. Rodgers, M.D.,
M.A.C.P.
Director, NIDDK

Former President Bush presented the award to O'Malley on September 29, 2008, recognizing "his pioneering work on the molecular mechanisms of steroid hormone action and hormone receptors and co-activators, which has had a profound impact on our knowledge of steroid hormones in normal development and in diseases, including cancer."

O'Malley, chair of Baylor College of Medicine's department of molecular and cellular biology, is the first scientist in the field of molecular endocrinology to receive the medal, considered the highest national honor in biological sciences.

"O'Malley's prodigious career is a tribute to the importance of basic research," said NIDDK Director Griffin P. Rodgers, M.D., M.A.C.P. "His research revolutionized the understanding of hormone action and the molecular regulation of processes as basic as metabolism and reproduction."

Much of O'Malley's early work focused on the steroid hormones—glucocorticoids, mineralocorticoids, androgens, estrogens, and progestagens—that regulate reproduction and basic metabolism. He used the tools of physiology and biochemistry to study the hormones' role in reproduction and developmental diseases and was one of the first to apply new methods as they were introduced.

Unique Properties

In the 1980s, evidence was growing that receptors for steroid hormones had unique structural properties and belonged to a common family of receptors. Instead of attaching to receptors on the cell surface, these hormones linked up with

receptors in the cell and its nucleus and acted as transcription factors to change the expression of genes.

After the first nuclear receptor was cloned, scientists went on to find 49 more, including those for steroid hormones, thyroid hormones, certain vitamins, and still-unknown hormone receptors. These "orphan receptors" also turned out to have profound effects on cells.

"O'Malley was one of the first to create an *in vitro* transcription assay, or a test tube system, that could recapitulate what happened inside a cell to study the changes in gene expression," said Ronald Margolis, Ph.D., NIDDK senior adviser for molecular endocrinology. "His assay stimulated much research that led to an even greater understanding of hormone action because scientists could use the method to study their favorite hormone and receptor."

Master Genes

"Hormones control almost all cellular physiology," O'Malley explained. "Receptors for steroid hormones, the most important class of hormones, are activated by the hormone. They then go into the cell's DNA and search out and find the target genes to be turned on or off. In the final step, they recruit complexes of co-regulators, including co-activators, that perform all the functions to turn the genes on. In a sense, these co-activators are master genes because they can activate different transcription factors at the same time, so you get a coordinated physiologic outcome."

O'MALLEY,

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NDEP News

NDEP Spotlights How-To's of Diabetes Prevention and Control

Reducing the illness and death associated with diabetes and its complications is the National Diabetes Education Program's (NDEP) mission. Now in its second decade, the NDEP will increasingly focus on educating people about how to make lifestyle changes that prevent or delay type 2 diabetes and, for those who have diabetes, how to reduce their risk of developing complications, according to Francine Kaufman, M.D., outgoing NDEP chair.

"Our messaging needs to move from why or what to how," Kaufman said at the December 11, 2008, NDEP Steering Committee Meeting in Washington, D.C. New and updated NDEP products to look for in 2009 that focus on the how-to's of diabetes prevention and control include

- a newly revised recipe book
- a photonovella describing how real people learn to manage their diabetes and reduce their risk
- a re-release of the "Control Your Diabetes. For Life." campaign, including a revised toolkit to help NDEP partners promote messages focusing on early and aggressive treatment to delay or prevent diabetes complications



- publications to help children with diabetes transition into adulthood
- newly revised community resources to help older adults with diabetes manage their disease, such as "The Power To Control Diabetes Is in Your Hands" online toolkit

New Resources

New NDEP resources include

- *Más que comida, es vida. (It's more than food. It's life.)* This bilingual poster, part of the "It's more than food. It's Life." nutritional campaign, is designed to dispel misunderstandings about healthy eating and teach Hispanics/Latinos how to adopt a tasty but nutritional meal plan that maintains the cultural uniqueness of their food. This color poster can be used as a resource for dietitians, diabetes educators, and people who want to manage their diabetes without losing their cultural identity.
- "What is Type 2 Diabetes?" This informational video from the U.S. Agency for Healthcare Research and Quality and the NDEP reviews the symptoms and risk factors associated with type 2 diabetes. The video highlights key components of diabetes management: nutrition, physical activity, medicines, and monitoring of blood glucose, also called blood sugar. It also reviews diabetes complications and recommended screenings and checks for people with diabetes.

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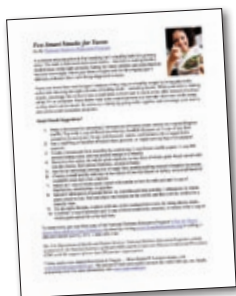
O'MALLEY, from page 7

Forging ahead, O'Malley and colleagues came to a stunning conclusion: Nuclear receptor co-regulators control physiologic processes as basic as cell growth, metabolism, inflammation, and reproduction. And if defective, these "little molecules with big goals" can lead to disease.

"When the activities of these master genes are compromised, cellular processes can quickly deteriorate," said O'Malley. In overdrive, some can spur the uncontrolled growth of cancer cells.

O'Malley is principal investigator of the Nuclear Receptor Signaling Atlas, a trans-National Institutes of Health consortium that provides a central source of information about hormones, nuclear receptors, and co-regulators. To date, 300 co-regulators for 49 nuclear receptors have been found, and 165 co-regulators have been linked to disease.

For more information about the Nuclear Receptor Signaling Atlas, go to www.nursa.org. ■

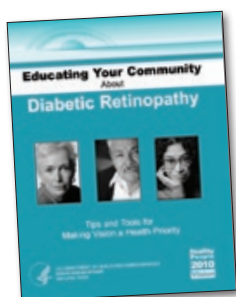


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- *Ten Smart Snacks for Teens*. This brief article offers 10 simple and healthy snack suggestions to help teens lower their risk for type 2 diabetes by maintaining a healthy weight.

All NDEP materials are copyright-free and free of charge. Many are available on printer-ready

CDs, making it convenient for organizations to add their logo and print desired quantities. Visit the NDEP at www.YourDiabetesInfo.org to download or order free materials, or call 1-888-693-NDEP (6337), 1-866-569-1162 (TTY). ■



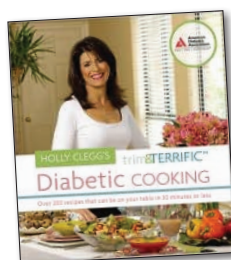
Featured in the NIDDK Reference Collection

Diabetic Retinopathy

Reducing visual impairment from diabetic retinopathy is one objective of the Healthy Vision 2010 program, sponsored by the U.S. Department of Health and Human Services. Diabetic retinopathy occurs when diabetes damages the tiny blood vessels inside the retina, the light-sensitive tissue at the back of the eye. *Educating Your Community About Diabetic Retinopathy: Tips and Tools for Making Vision a Health Priority* is a handbook designed to help educators and health care providers promote eye health in their communities. Good eye health has been linked to improved overall health and may reduce the risk of other illness, injury, and disability. The handbook includes facts about diabetic retinopathy, activity suggestions, promotional materials such as a sample newspaper article and radio and print public service announcements, and a reproducible brochure titled *If You Have Diabetes, Get A Comprehensive Dilated Eye Exam*. Activities are suggested for health care providers, faith communities, community leaders, special events, employers, and business leaders. The handbook is part of a larger "Healthy Vision 2010 Toolkit." Both the handbook and toolkit are available through the National Eye Institute at 2020 Vision Place, Bethesda, MD 20892-3655, 301-496-5248, www.nei.nih.gov.

Cooking and Diabetes

Holly Clegg's Trim & Terrific Diabetic Cooking, one edition in the Trim & Terrific cookbook series by author Holly Clegg, offers more than 250 healthy recipes that focus on the basics of nutrition: choose low-fat dairy products and meats; watch portion sizes; include a variety of fresh fruits, vegetables, beans, and whole grains; and enjoy desserts in moderation. Recipes focus on simple preparation, with most items able to be prepared in less than 30 minutes. The book offers recipes in 10 categories: appetizers; breads, muffins, and brunch; soups, stews, and chili; salads; vegetables and sides; poultry; fish and seafood; beef, pork, lamb, and veal; pasta; and sweet treats. Each recipe lists ingredients, describes the preparation, and includes nutritional information and exchange list values. Three additional sections offer lists for stocking the pantry; 7 days of menu suggestions; and recipe suggestions for meal planning. A recipe index, primarily categorized by main ingredient, concludes the book. Each section begins with full-color photographs of featured dishes. The cookbook, published by the American Diabetes Association, Inc., costs \$18.95 and is available at www.diabetes.org or by calling 1-800-232-6733.



The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Reference Collection is a free, online database that helps health care professionals, health educators, patients, and the general public find educational materials not typically referenced in most databases. The NIDDK does not control or endorse the information contained in this collection; the information is provided as a convenience to our visitors. To find more resources about diabetes, visit www.catalog.niddk.nih.gov/resources. ■

Additional Resources

Updated Publications

The National Diabetes Information Clearinghouse (NDIC) has updated the following fact sheets:

- *Diabetes Overview*
- *Diagnosis of Diabetes*
- *Hypoglycemia*
- *Insulin Resistance and Pre-diabetes*
- *Sexual and Urologic Problems of Diabetes*



New Spanish Publication

The NDIC has translated one new diabetes publication into Spanish:

- *For Women with Diabetes: Your Guide to Pregnancy (Guía sobre el embarazo para mujeres con diabetes)*



Updated Spanish Publications

The NDIC has updated three Spanish-language diabetes publications:

- *Prevent diabetes problems: Keep your diabetes under control (Cómo prevenir los problemas de la diabetes: Controle la diabetes)*
- *Prevent diabetes problems: Keep your kidneys healthy (Cómo prevenir los problemas de la diabetes: Mantenga sanos los riñones)*
- *What I need to know about Diabetes Medicines (Lo que usted debe saber sobre las medicinas para la diabetes)*

Conference Summary Reports

A summary report of the Diabetes and Obesity Disparities in Health Care Systems Conference, which was hosted by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) in July 2008, is now available. To view the report, go to www3.niddk.nih.gov/fund/other/healthcaredisparities2008.



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ADDITIONAL RESOURCES, from page 10

New Interactive Tools

New to the Interactive Health Education Tools section of the NIDDK website are

Streaming Audio

- Lowering the Risk for Type 2 Diabetes in Teens
- NIDDK Resource to Help Guide Diabetic Women through a Healthy Pregnancy

Quizzes

- Cholesterol Quiz
- Portion Distortion Quiz

The NIDDK interactive tools section consolidates tools and resources about diabetes from the National Institutes of Health (NIH) and the National Library of Medicine. To access these resources, visit www.diabetes.niddk.nih.gov/resources/HealthTools.

Featured Website

Children and Clinical Studies

A new website developed by the NIH informs parents and health care providers about clinical studies for children. Featuring video interviews with researchers, parents, and children involved in clinical trials, the website addresses why research on children is important, factors to consider when deciding whether to enroll in a clinical trial, and the challenges and benefits of participating. To visit the site, go to www.childrenandclinicalstudies.nhlbi.nih.gov. ■



Upcoming Meetings, Workshops, and Conferences

The National Institute of Diabetes and Digestive and Kidney Diseases Information Clearinghouses will be exhibiting at the following upcoming events:

American College of Physicians Internal Medicine

April 23–25 in Philadelphia.

For more information, go to www.acponline.org/meetings/internal_medicine/2009/attendees/?pr13r.

American Academy of Physician Assistants Annual Conference

May 23–28 in San Diego.

For more information, go to www.aapa.org/annual-conf/sandiego09/index.php.

American Diabetes Association 69th Scientific Sessions

June 5–9 in New Orleans.

For more information, go to http://professional.diabetes.org/Congress_Display.aspx?TYP=9&SID=148&CID=57909.

American Academy of Nurse Practitioners 24th National Conference

June 17–21 in Nashville, TN.

For more information, go to www.aanp.org/AANPCMS2/Conferences.

American Association of Diabetes Educators 36th Annual Meeting and Exhibition

August 5–8 in Atlanta.

For more information, go to www.diabeteseducator.org/ProfessionalResources/AnnualMeeting. ■